MANUYLOVA, N.S., kand. khim. nauk; VARSHAL, B.G., kand. tekhn. nauk;
MAYYER, A.A., kand. tekhn. nauk

Investigation of the texture and some physico-chemical properties of perlite. Sbor. trud. ROSNIIMS no.25:32-45 '62 (MIRA 17:8)

MANUYLOVA, N.S., kand. khimich. nauk; STOLOVITSKAYA, M.M., inzh.; VEBER, S.I., inzh.

Effect of the structure and texture of perlitic rock on its expansibility. Sbor. trud. ROSNIIMS no.25:46-53 '62 (MIRA 17:8)

POLINKOVSKAYA, A.I., kand. tekhn. nauk; MANUYLOVA, N.S., kand. khim. nauk; SERGEYEV, N.I., inzh.

Service life of the linings of rotary kilns for expanded perlite. Sbor. trud. ROSNIIMS no.25:105-119 '62 (MIRA 17:8)

ACCESSION NR: AR4036317 S/0081/64/000/004/B092/B093

SOURCE: Referativny*y zhurnal. Khimiya, Abs. 4B671

AUTHOR: Mayer, A. A.; Varshal, B. G.; Manuylova, N. S.; Varlamov, V. P.

TITLE: Dehydration of certain zeolites in a vacuum and their rehydration under hydrothermal conditions

CITED SOURCE: Sb. tr. Resp. n.-i. in-t mestn. stroit. materialov, no. 27, 1963, 3-23

TOPIC TAGS: zeolite, dehydration, rehydration, natrolite, analcine, desmin

TRANSLATION: Baking of natural natrolite (Nt) in a vacuum at 200C does not change its properties, but at 400C complete dehydration occurs. Previously dehydrated Nt treated with steam at 20-250 C changes into p-natrolite(PNt). PNt has the same chemical composition and crystalline form as the native Nt, but differs in that the water in it is primarily absorbed water and not water of crystallization as in the natural form. Therefore, PNt has twice the dielectric permeability. Saturation with water vapor at 20-250C does not change the properties of natural Nt and

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ACCESSION NR: AR4036317

PNt. During treatment of vapor saturated PNt at 300C, it changes completely into analcime and sodium hydroaluminate. Natural Nt under the same conditions changes only slightly. Apparently, the presence of water of crystallization makes the substance resistant to the effects of strongly heated steam. Therefore, one should look into this phenomenon as a reason for the complete stability of analcime in an atmosphere of steam at 300C. In other words, the resistance of the mineral to the effects of strongly heated steam is determined by the physical type of water present in it. The presence of water of crystallization in the lattice of Nt provides its crystals with mechanical resistance. After baking in a vacuum at 200C, desmin (Dm) fully retains the ability to be rehydrated. Due to its tridimensional structure, the crystal lattice of Nt does not change during dehydration in a vacuum, which permits the water during rehydration to return in the same quantity. On the other hand, the two dimensional stratified lattice of Dm is destroyed during heating in a vacuum at 400C, and because of that Dm loses the ability to be rehydrated to a considerable extent. During rehydration of dehydrated

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Nt and Dm, the water which returns is mainly adsorptive in character. Experiments have shown that in acidic volcanic, water-containing glass, the water is also adsorptive in character. This permits us to make an analogy between perlites and zeolites, many of which similarly swell up when heated. Authors' summary.

DATE ACQ: 10Apr64 SUB CODE: IC ENCL: 00

Card 3/3

L 23304-66 EWT(d)/EWT(m)/EWP(w)/EWP(v)/T/EWP(t)/EWP(k)/EWP(h)/EWP(l)
JD/HM/EM/DJ

ACC NR: AP6011270 SOURCE CODE: UR/0413/66/000/006/0125/0125

INVENTOR: Shlykov, V. P.; Manuylova, O. M.

ORG: none

TITLE: Furnace for brazing honeycomb panels. Class 49, No. 180073

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 6, 1966, 125

TOPIC TAGS: brazing, honeycomb panel, honeycomb panel brazing, brazing furnace

ABSTRACT: This Author Certificate introduces a furnace for brazing honeycomb panels (see Fig. 1). It consists of a shielding gas chamber, an upper and lower base, a bottom plate on which the panels are placed, and a set of quartz lamps. To provide for adequate clamping and to prevent distortion of the panels, the upper base of the unit is equipped with heat-resistant strips made of metal whose linear expansion

Card 1/2 UDC: 621.791.364.039

L 23304-66

ACC NR: AP6011270

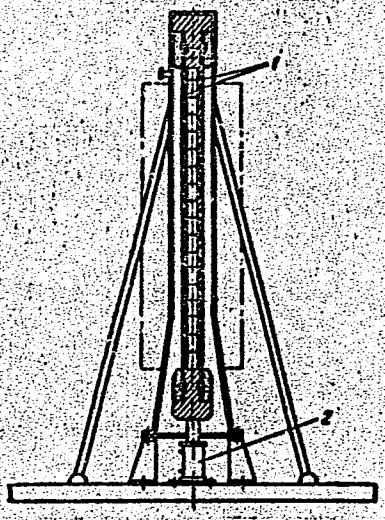

Fig. 1. Furnace for brazing honeycomb panels

1 - Heat-resistant strips;
2 - hydraulic cylinders.

coefficient is lower than that of the brazed panels, while the lower base has hydraulic cylinders with rams connected to the other ends of the strips. Orig. art. has: 1 figure. [ND]

SUB CODE: 13/ SUBM DATE: 18Mar64/ ATD PRESS: 4230

Card 2/2

GRINBERG, N.Kh., MANUYLOVA, T.A.

Rapid method of determining alcohol in fruit juices.
Trudy MNIIPP 5:86-91 '64. (MIRA 19:1)

MANUYLOVA, T. D.

Manuylova, T. D. and Shakhurina, Ye. A. "the survival of worm eggs after composting of wastes", Sbornik rabot po gel'mintologii (Vseso yuz. in-t gel'mintologii im; akad. Skryabina), Moscow, 1948, p. 237-44.

SO: U-3042, 11 March 53, (Letopis 'zhurnal 'nykh Statey, No. 10, 1949).

S/737/61/000/000/010/010

AUTHORS: Braun, M.P., Doctor of Technical Sciences, Professor, Vinokur, B.B., Matyushenko, N.I., Manuylova, V.P., Engineers.

TITLE: The effect of plastic deformation on the structure of heat-resisting steel ЭИ726 (EI726).

SOURCE: Stal', sbornik statey. Ed. by A. M. Yampol'skiy. Moscow. 1961, 478-489.

TEXT: An investigation was made of the heat-resisting steel ЭИ726 (EI726) with the following % composition (B and Ce calculated): C 0.12, Mn 1.58, Si 0.59, Ni 16.97, Cr 15.09, W 2.00, Nb 1.31, S 0.018, P 0.018, B 0.025, Ce 0.02%. In austenitic steels heating and cooling does not produce any polymorphic transformations, and plastic deformation is one of the principal factors in controlling the grain size. Inasmuch as in actual production different portions of an ingot undergo deformation at different temperatures, it is advisable to investigate the plasticity of the metal at various descending temperatures. Tests were made by the upsetting method. The specimens were initially 30 mm dia and 60 mm high. The specimens were insulated with asbestos sheathing to minimize radiative losses during thermal upsetting. Upsetting of specimens heated to 1170°C was done step by step to 15, 30, 45, 60, and 75%; this was followed by water cooling. The furnace temperature was then reduced step by step to 1100, 1000, 900, and 800°, and in each instance a batch of the specimens remaining in the furnace was subjected to upsetting, except for one control specimen which was water-cooled without any impact test. Microscopic in-

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spection before and after aqua-regia etching reveals a growing coarseness consisting of a network of mutually intersecting 45° shear lines, accompanied by the formation of external "orange peel." Such coarseness attains a maximum at 45% deformation; at 60% deformation fissures begin to form (photographs are shown). At lower temperatures (900°) coarseness increases for a given % deformation, and fissures appear at 45%. At 800°, heavy coarseness appears at 30% deformation. The test specimens were axially sectioned, the section slices were etched electrolytically for 20 sec in concentrated HNO_3 at 0.3 a/cm^2 and were examined under the microscope. The impaired diffusion in the highly alloyed steel and the rapid deformation and subsequent water cooling slow down the recrystallization process; hence, the specimens evince a dendritic structure; the dendritic structure is increasingly distorted with increasing % deformation. The distribution of the nonuniform deformation was determined stereoscopically by Saltykov's method (no reference). Thus, in specimens having undergone a total deformation of 45%, the deformation in the surface layers of the facial plane was only 30%, at 1/6 of the height 45%, and at the midpoint 66%. The dendrites near the faces, which are constrained by the friction with the impact tool, are deformed but little; at the midpoint the deformation (at temperatures up to 1170°) may be so complete that the structure becomes unidentifiable, except for a highly directional texture (photograph shown). At higher temperatures the dendrites are deformed considerably less; hence, the upsetting operation should not be terminated at high temperatures; on the other hand, the deformation

should not be completed at lower temperatures, where the plasticity of the metal is reduced and the relaxation processes are so impaired that any subsequent heating may result in a collective recrystallization. A most uniform structure with grain sizes of between 4 and $8 \cdot 10^{-3}$ μ^2 without disruption of the continuity of the metal are obtained by upsetting deformations of 30-45% at temperatures of 900-1000°C (photographs shown). Three-dimensional diagrams of grain size versus % deformation and temperature are shown. The effect of subsequent heating on the recrystallization of deformed specimens was investigated by holding them for 5 hours at 1080° and then water-quenching them. Electrolytic etching revealed new, smaller, polycrystalline grains and strong disintegration of the old, larger, dendritic grains. 15% deformation at 1170° may permit some growth of the grain; greater deformation at less than 1000° crushes the grain effectively. Heating after deformation evens out the grain size and eliminates any texture; however, the sectional size of the grains still depends on the size of the deformed dendrites. It is found and recommended that EI726 steel should be deformed by upsetting to an extent not to exceed 40% at temperatures not below 900°. There are 7 figures and 5 references (all Russian-language, of which 2 are Soviet and 3 appear to be Russian translations of Western books).

ASSOCIATION: Institut liteynogo proizvodstva AN USSR, Ukrainskaya akademiya s.-kh.nauk, Novokramatorskiy mashinostroitel'nyy zavod (Institute of Foundry Production AS UkrSSR, Ukrainian Academy of Agricultural Sciences, New Kramatorsk Machine-Building Factory).

MATYUSHENKO, N.I.; MANUYLOVA, V.P.; VINOKUR, B.B.; BRAUN, M.P.

Recrystallization of EI726 cast heat-resistant steel. Strukt. i svois. lit. splav. no.1:125-128 '62. (MIRA 15:5)
(Steel castings) (Crystallization)

BRAUN, M.P., doktor tekhn.nauk; VINOKUR, B.B., inzh.; MATYUSHENKO, N.I., inzh.; MANUYLOVA, V.P., inzh.

Efficient conditions for shaping and heat treatment of heat-resistant austenite steel. Mashinostroenie no.4:32-36 Jl-Ag '62. (MIRA 15:9)

1. Institut liteynogo proizvodstva AN UkrSSR.
(Steel--Heat treatment)

S/129/63/000/003/006/009
E193/E383

AUTHORS: Astaf'yev, A.A., Abramova, V.P., Kondrashev, A.I., and Manuylova, V.P.

TITLE: Combined forging and hardening of large parts

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov, no. 3, 1963, 24 - 28

TEXT: The object of the present investigation, conducted by TsNIITMASh in cooperation with the Novo-Kramatorskiy mashinostroitel'nyy zavod (Novo-Kramatorsk Machine-building Works), was to explore the possibility of hardening large forgings of carbon and low-alloy steels by quenching directly after the hot-forging operation. The experiments were conducted on stepped forgings, 300 and 500 mm in diameter, made from basic open-hearth steel 45 and basic steel 40XH (40KhN), smelted in an electric furnace. The blanks were preheated to 1 200 °C. The forging operation lasted 22 - 48 min, the reduction given being 5 and 1.9 for steps of 300 and 500 m in diameter, respectively. The following three variants of hardening treatment were studied: 1 - quenching immediately after the forging operation; 2 - quenching after holding the

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Combined forging ....

forging at 850 °C for 4 hours (steel 45) or 1.5 h (steel 40KhN); 3 - quenching after forging, tempering, reheating and quenching again. Steel 45 forgings were water-quenched (cooling time - 15-20 min); steel 40KhN test pieces were oil-quenched (cooling time 63 - 76 min) and transferred to a tempering furnace when their surface temperature reached 200 °C. Both steels were tempered at 640-660 °C for 20 and 45 hours; experiments were also conducted on steel 40KhN, tempered at 550-570 °C for 25 hours. After tempering the forgings were cooled to 400 °C at a cooling rate of 40 °C/h and then to room temperature at 30 °C/h; the specimens tempered for 45 h were cooled in air. After the heat treatment test pieces were cut from the surface layer, from the region R/3 distant from the surface and from the central region of the forging; these were used for metallographic determination and for determining the mechanical properties of the forging. Typical results obtained for steel 45 forgings are reproduced in Fig. 1, where the UTS (σ_b, kg/mm^2), yield point (σ_s, kg/mm^2) impact strength (a_k, kgm/cm^2), reduction in area (ψ, %) and elongation (δ, %) are plotted against the distance (R, mm) from

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Combined forging ....

the forging surface; curves 1-3 relate to forgings quenched immediately after forging, curves 4 to forgings quenched after 4 h at 850 °C and curves 5 to material quenched after a second reheating (tempering at 640-660 °C); diagrams a and б were constructed for steps 300 and 500 mm in diameter, respectively. Conclusions: 1) in the case of steel 45 forgings up to 500 mm in diameter, quenching immediately after hot forging does not give rise to flaking, irrespective of which part of the ingot is used for producing the forging. The same applies to steel 40KhN forgings of up to 300 mm in diameter. Flaking can, however, occur in steel 40KhN forgings of 500 mm in diameter, made from the top part of the ingot and quenched immediately after forging. 2) The mechanical properties of steel 45 forgings of up to 300 mm in diameter, quenched immediately after hot forging and given a high-temperature tempering, meet the requirements imposed by service conditions. 3) The results of the present investigation provide grounds for recommending that quenching after forging be used as the final heat treatment for medium-carbon steel forgings of up to 300 mm in diameter. In the case of steels 40KhN, 40Х (40Kh), 34ХМ (34KhM), 50Г (50G), 60Г (60G), 40ХНМ (40KhNM) et al quenching immediately

Combined forging ....

after hot forging should be applied as a preliminary heat treatment instead of prolonged annealing which is normally used after forging to prevent flaking. 4) Field trials conducted at the Novo-Kramatorsk Machine-building Works on forgings of up to 400 mm in diameter yielded satisfactory results. There are 3 figures.

ASSOCIATIONS: TsNIITMASh
Novo-Kramatorskiy zavod (Novo-Kramatorsk Works)

MAMYLOVA, YE. F. PA 49/49T15

USSR/Biology Sep/Oct 48
Marine Biology
Daphnia

"Study of Variants of Cladocera: I, Variants of Daphnia in Lake Balkhash," Ye. F. Mamylova, Zool Inst, Acad Sci USSR, 12 pp

"Iz Ak Nauk SSSR, Ser Biol" No 5

Describes Daphnia balchashensis sp. nov. Presents series of measurements of species obtained from different parts of lake. Ascribes variations to changes in water temperature and mineral content. Submitted 15 Jun 47.

49/49T15

MANUYLOVA, Ye.F.

Results of the first year's operations in increasing the productivity of waters in Novgorod Province. Trudy probl. i tem.sov. no.1:56-60 '51. (MLRA 9:7)

(Novgorod Province--Fresh-water biology)

MANUYLOVA, Ye.F.; PAVLOVSKIY, Ye.N., akademik.

Connection between the development of Cladocera and the food factor. Dokl. AN SSSR 90 no.6:1155-1158 Je '53. (MLRA 6:6)

1. Novgorodskoe otdelenie Vsesoyuznogo nauchno-issledovatel'skogo instituta ozernogo i rechnogo rybnogo khozyaystva. 2. Akademiya nauk SSSR (for Pavlovskiy). (Cladocera)

MANUYLOVA, Ye.F.

Some data on population dynamics of Cladocera in lakes in connection with thermal and food factors. Trudy probl. i tem. soveshch. no.2: 215-222 '54. (MIRA 8:5)
(Cladocera)

MANUYLOVA, Ye.F.

Conditions of the mass debelopment of Cladocera. Trudy Biol.sta. "Borok" no.2:89-107 '55. (MLRA 9:6)
(Cladocera)

MANUYLOVA, Ye.F.

On the interrelation of the variability of pelagic Cladocera and the development of bacteria in the water basin. Dokl.AN SSSR 103 no.6:1111-1114 Ag '55. (MLRA 9:1)

1.Predstavleno akademikom Ye.N.Pavlovskim.
(Novgorod Province--Cladocera)

MANUYLOVA, Ye.F.

Zooplankton variation in lakes and artificial water reservoirs.
Dokl. AN SSSR 117 no.2:325-328 N '57. (MIRA 11:3)

1. Nauchno-issledovatel'skaya biologicheskaya stantsiya "Borok" im. N.A. Morozova Akademii nauk SSSR. Predstavleno akademikom Ye.N. Pavlovskim.

(Plankton)

MANUYLOVA, Ye.F.

Biology of Daphnia longispina in Rybinsk Reservoir. Trudy Biol. sta. "Borok" no.3:236-249 '58. (MIRA 11:9)
(Rybinsk Reservoir--Water fleas)

AUTHOR: Manuylova, Ye. F. SOV/20-[illegible]

TITLE: On the Role of the Numerical [illegible] of Bacteria in the [illegible] of the Cladocera Under Natural Conditions (K voprosu o znachenii chislennosti bakteriy v razvitii vetvistousykh rachkov v yestestvennykh usloviyakh)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 120, Nr 5, pp. [illegible] (USSR)

ABSTRACT: The data available at present on the application and the nutrient value of bacteria in the nutrition of Cladocera (Ref 6) and a number of observations carried out in waters (Refs 1-4) convincingly indicate the importance of these microorganisms as food for the mentioned family of Crustacea. Furthermore it should be investigated how far the natural concentrations of bacteria are able to satisfy the demand of the filtering agents. Since Cladocera do not show a special capacity of selecting individual groups of bacteria (Ref 8) it is possible that the amount and the biomass of the Cladocera in waters is determined by the total content of bacteria in the water. Various species of Cladocera from the reservoir Rybinsk (Rybinskoye vodokhranilishche) were kept in natural water

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On the Role of the Numerosity of Bacteria in the Development of the Cladocera Under Natural Conditions

without additional food. Algae and detritus were removed by filtration so that Cladocera were mainly fed with bacteria. In this experiment the development of bacteria in the waters and the state of Cladocera showed two stages: a) the first comprised the whole month of June; the number of bacteria in the Shumorovka river was relatively small (under 4[illegible] per 1 cm^3). The development of one generation of Cladocera took more than 24 hours. In the aquarium most of the Cladocera perished after 2 - 3 days. The second growth generation perished without having skinned. Only Peracantha truncata and Scapholeberis mucronata developed and attained maturity after 7 - 8 days. b) At the beginning of August the reproduction of bacteria in the waters increased. About the middle of August 3 and 4 generations developed within 24 hours. The total number of bacteria amounted to 434 000 - 1 [illegible] per 1 cm^3 water. In this period the duration of life of natural Cladocera in the aquarium attained that of the Cladocera living in the river. The rising generation developed normally. On figure 1 the fluctuations of the biomass of the zooplankton, the number of bacteria and the survival of Cladocera

On the Role of the Numerosity of Bacteria in the Development of the Cladocera Under Natural Conditions

under normal conditions and the aquarium are illustrated. Further experiments aimed at determining the more active filtrates among the Cladocera. Sida crystallina proved to be such an active filtering agent. Daphnia cucullata and Bosmina consumed the smallest number of bacteria. The data on the development of the mentioned species in the waters correspond to these results. Due to the fluctuations of the concentration of bacteria in the waters the complex of Cladocera is continuously regrouped as to their total number and to their number of species. There are 1 figure, 1 table, and 8 references, 8 of which are Soviet.

ASSOCIATION: Institut biologii vodokhranilishch Akademii nauk SSSR (Institute of Biology of Reservoirs, AS USSR)

PRESENTED: March 3, 1958, by Ye. N. Pavlovskiy, Member, Academy of Sciences, USSR

SOV/20-120-5-55/67

On the Role of the Numerosity of Bacteria in the Development of the Cladocera Under Natural Conditions

SUBMITTED: February 27, 1958

1. Crustacea--Nutrition 2. Bacteria--Abundance 3. Crustacea --Growth 4. Bacteria--Physiological effects

Card 4/4

MANUYLOVA, Ye.F.

Effect of blue-green algae on the development of zooplankton.
Biul.MOIP.Otd.biol. 64 no.1:155-156 Ja-F '59. (MIRA 12:7)
(Algae) (Zooplankton)

MANUYLOVA, Ye.F.

Disappearance of plankton as a factor in the increase of the bacterial population in bodies of water. Nauch. dokl. vys. shkoly; biol. nauki no.2:19-22 '61. (MIRA 14:5)

1. Rekomendovana kafedroy obshchey biologii Saratovskogo meditsinskogo instituta.
(PLANKTON) (BACTERIA)

MANUYLOVA, Ye.F.

Reproduction of water fleas in relation to the concentration of bacteria. Nauch. dokl. vys. shkoly; biol. nauki no.2:32-35 '62. (MIRA 15:5)

1. Rekomendovana kafedroy obshchey biologii Saratovskogo meditsinskogo instituta.

(WATER FLEAS) (WATER--MICROBIOLOGY)

MANUYLOVA, Ye.F.

Effect of blue-green algae on the development of zooplankton. Biul. MOIP. Otd. biol. 67 no.1:128-131 Ja-F '62. (MIRA 15:3)
(ZOOPLANKTON)
(ALGAE)

MANUYLOVA, Ye.F.

Cyclomorphosis of Cladocera as a specific adaptive character.
Biul. MOIP. Otd. biol. 67 no.1:153 Ja-F '62. (MIRA 15:3)
(CLADOCERA)

MANUYLOVA, Ye.F.

Dynamics of the abundance of water fleas. Vop. ekol. 5:128 '62.
(MIRA 16:6)

1. Meditsinskiy institut, Saratov.
(Water fleas)

MANUYLOVA, Ye.F.

Cyclomorphosis in Cladocera as an adaptive species feature. Biul. MOIP. Otd. biol. 68 no.1:52-62 Ja-F '63. (MIRA 17:4)

MANUYLOVA, Yelizaveta Fedorovna; PAVLOVSKIY, Ye.N., akademik, glavnyy red.; STRELKOV, A.A., red. toma; BYKHOVSKIY, B.Ye., red.; GROMOV, I.M., red.; MONCHADSKIY, A.S., red.; SKARLATO, O.A., red.; SHTAKEL'BERG, A.A., red.

[Cladocera of the U.S.S.R.] Vetvistousye rachki (Cladocera) fauny SSSR. Moskva, Nauka, 1964. 326p. (Opredeliteli po faune SSSR, no.88).

(MIRA 17:12)

MANYAI, S

Effect of sodium fluoride and monoiodoacetate on glycolysis of human erythrocytes. S. Manyai and M. Székely (*Acta physiol. Acad. Sci. hung.* 195[illegible]).—Simultaneous determinations of ATP, ADP, and P_i during inhibition by NaF and iodoacetic acid showed that P_i is not identical with either ATP or ADP. The phosphates produced at the cost of the labile P of the ATP during these inhibitions are hexose mono- and di-phosphates as well as triose glycerophosphates. On cessation of inhibition, these intermediate compounds of glycolysis are decomposed and ATP is resynthesised.

A. B. L. Bezinak.

ZARDIZE, G.M.; KAZAKHASHVILI, T.G.; KIKNADZE, I.I.; MANVELIDZE, R.M.

Structural and petrological features of ancient crystalline rocks in the Northern Caucasus. Sov.geol. 5 no.2:29-36 F '62.(MIRA 15:2)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova i Gruzinskiy politekhnicheskiy institut imeni V.I.Lenina.
(Caucasus, Northern--Rocks, Crystalline and metamorphic)

ZARIDZE, G.M.; KAZAKHASHVILI, T.G.; MANVELIDZE, R.M.

Clay schists and sandstones in the upper Adylsu and Adyrsu Rivers (Baksan Basin) of the northern Caucasus. Izv.vys.ucheb.zav.; geol.i razv 5 no.6:28-31 Je '62. (MIRA 15:7)

1. Gruzinskiy politekhnicheskiy institut imeni V.I.Lenina.
(Baksan Valley--Clay) (Baksan Valley--Sandstone)

MANVELOV, I.M.

Development and introduction of efficiency suggestions at the "Kauchuk" plant. Izobr. v SSSR. 1 no.2:37-38 Ag '56.
(MLRA 10:3)

1. Direktor zaveda "Kauchuk".
(Rubber industry)

MANVELOV, I.

Increase material incentives in industry. Vop.ekon. no.4:99-104 Ap '57. (MLRA 10:5)

1.Direktor Moskovskogo zavoda "Kauchuk".
(Chemical industries)
(Wages)

MANVELOV

MANVELOV, I.M.

At the "Kauchuk" factory. Khim. prom. no.6:366-367 S '57.
(MIRA 11:1)

(Moscow--Rubber industry)

MANVELOV, Ivan Mirzoyevich; GUROV, S., red.; YEGOROVA, I., tekhn.red.

[Word and deed; or how the efficiency group in the "Kauchuk" factory doubled production] Slovo i delo; o tom, kak kollektiv zavoda "Kauchuk" udvoil vypusk produktsii. Moskovskii rabochii, 1958. 93 p. (MIRA 12:4)

1. Direktor Moskovskogo ordena Trudovogo Krasnogo Znameni zavoda "Kauchuk" (for Manvelov).
(Efficiency, Industrial) (Moscow--Rubber industry)

MANVELOV, L. L.

3

PHASE I BOOK EXPLOITATION SOV/5973

Rayev-Bogoslovskiy, Boris Sergeyevich, Georgiy Ivanovich Glushkov, Andrey Stepanovich Tkachenko, Aleksandr Vasil'yevich Mikhaylov, Leon Ivanovich Manvelov, Nikolay Ivanovich Volokhov, Ivan Nikolayevich Tolmachev, and Fedor Iosifovich Ruban

Zhestkiye pokrytiya aerodromov (Hard Surface Covers of Airfields) Moscow, Avtotransizdat, 1961. 321 p. 2000 copies printed.

Ed.: B. S. Deberdeyev; Tech. Ed.: Ye. N. Galaktionova.

PURPOSE: This book is intended for technical personnel and may prove useful to students at technical schools.

COVERAGE: The book discusses the properties, characteristic features, and construction of runways, taxiways, stands for airplanes, and platforms for passengers to be used in the various climatic and geological regions of the USSR. The following are reviewed: specifications of materials, modern airfield-surface covers (one- and two-layer concrete, ferroconcrete, prestressed, monolithic, and

Card 1/

ZAYTSEVA, L.P.; POROKHOVA, T.G.; MANVELOVA, K.V.

Method of color microscopy in the ultraviolet for investigating the structure of iron-chromium alloys. Zav.lab. 28 no.7:812-814 '62 (MIRA 15:6)

1. Leningradskiy politekhnicheskiy institut.
(Iron-chromium alloys—Metallography)

L 23830-65 EWT(m)/EPF(n)-2/EWP(t)/EWP(b) Pu-4 IJP(c) JD/JG

ACCESSION NR: AT4045955 S/2563/64/000/234/0018/0024

AUTHOR: Zaytseva, L. P.; Porokhova, T. G.; Manvelova, K. V. 37

TITLE: Investigation of the structure of iron-tungsten-carbon and iron-molybdenum-carbon alloys by method of color microscopy with ultraviolet rays

SOURCE: Leningrad. Politekhnicheskiy institut. Trudy*, no. 234, 1964. Metallovedeniye (Metallography), 18-24

TOPIC TAGS: iron, tungsten, carbon 27, molybdenum 27, ultraviolet radiation, chromium, titanium 27, niobium 27, carbide, caustic soda solution, potassium manganate solution 27

ABSTRACT: In preceding experiments the authors developed a method for the determination of the structure of alloys according to bright characteristic colors which are revealed under the effect of ultraviolet radiation. Furthermore the relevant colors were determined for carbide and the intermetallic phases of Cr, Ti and Nb making it possible to distinguish these phases in a complex alloy. The phases in Fe-W-C and Fe-Mo-C alloys were identified after etching with an

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ACCESSION NR: AT4045955

aqueous solution of caustic soda and an alkaline solution of potassium manganate, both solutions giving good results. Under the microscope using ultraviolet light, the W and Mo phases were clearly visible and readily distinguished from ferrite, intermetallic and carbide phases. After etching an Fe-W-C alloy with an aqueous solution of caustic soda, the intermetallic phase shows up light brown under the microscope, carbide is brown and ferrite light. Molybdenum carbide was brown and its intermetallic and ferrite phase remain light. The intermetallic phase in W showed up red, tungsten carbide black and ferrite light green. Orig. art. has: 3 figures and 4 tables

ASSOCIATION: Leningradskiy politekhnicheskiy institut (Leningrad Polytechnic Institute)

SUBMITTED: 00 ENCL: 00 SUB CODE: MM

NR REF SOV: 002 OTHER: 000

Card 2/2

MANVELOVA, N.S.

Reorganization in the polyclinic department of the Ostroumov No.33 City Clinical Hospital. Zdrav. Ros. Feder. 4 no.5:16-18 My '60. (MIRA 13:11)

1. Zamestitel' glavnogo vracha Gorodskoy klinicheskoy bol'nitsy No.33 imeni Ostroumova.
(MOSCOW—HOSPITALS—ADMINISTRATION)

MANVELOVA, R.S.

Efficient method for treating the umbilical cord of newborn infants. Zdrav.Tadzh. 6 no.2:33-34 Mr-Ap '59. (MIRA 12:9)

1. Zaveduyushchiy akusherako-ginekologicheskim otdeleniyem Moskovskoy rayonnoy bol'nitsy.
(UMBILICUS)

MANVELYAN, A. M., Cand of Vet Sci -- (diss) "Treatment of certain gynecological diseases of cattle with carbide residues." Yerevan, 1957, 16 pp (Yerevan Zooveterinary Institute), 100 copies (KL, 32-57, 95)

MARTIROSYAN, G.M.; MANVELYAN, A.P.; TERLEMEZYAN, G.Ye.; MELKUMYAN, G.G.; AGAMIRYAN, G.N.; TARDZHIMANOV, R.O.; GUKASYAN, V.M.; POGOSYAN, M.P.; MARUKHYAN, A.O.; MARUNOV, P.M., red.; SAROYAN, P., tekhn.red.; MATINYAN, A.A., tekhn.red.

[Forty years of Soviet Armenia; a statistical manual] Sovetskaia Armeniia za 40 let; statisticheskii sbornik. Erevan, Armianskoe gos.izd-vo, 1960. 209 p. (MIRA 14:4)

1. Armenian S.S.R. Statisticheskoye upravleniye. 2. Nachal'nik TSentral'nogo statisticheskogo upravleniya pri Sovete Ministrov Armyanskoy SSR (for Martirosyan). 3. Zamestitel' nachal'nika TSentral'nogo statisticheskogo upravleniya pri Sovete Ministrov Armyanskoy SSR (for Manvelyan). 4. TSentral'noye statisticheskoye upravleniye pri Sovete Ministrov Armyanskoy SSR (for Terlemezyan, Melkumyan, Agamiryan, Tardzhimanov, Gukasyan, Pogosyan, Marukhyan). 5. Nachal'nik otdela statistiki svodnykh rabot TSentral'nogo statisticheskogo upravleniya pri Sovete Ministrov Armyanskoy SSR (for Marunov).

(Armenia--Statistics)

MANVELYAN, A.T.

Work practices of the "Krasnyi Vostok" Factory, an enterprise of communist labor. Tekst. prom. 25 no.8:48-50 Ag '65.
(MIRA 18:9)

1. Direktor trikotazhno-perchatochnoy fabriki "Krasnyy Vostok".

SIMONOV, M.Z., doktor tekhn.nauk; SARKISYAN, R.R., kand.tekhn.nauk; MANVELYAN, D.S., inzh.; MKHITARYAN, R.M., inzh.; GYURDZHYAN, A.R., inzh.; MALADZHYAN, P.A.

Manufacturing precast thin-walled articles by guniting. Mekh. stroi. 18 no.5:16-18 My '61. (MIRA 14:7)

1. Armyanskiy institut stroitel'nykh materialov.
(Reinforced concrete construction) (Gunite)

MANVELYAN, E.G.

MANVELYAN, E.G.; SULTANOV, D.K., redaktor; UDALYY, A.M., tekhnicheskiy redaktor.

[Safety measures in assembling and use of a dual-pitman reduction gear pumping unit] Tekhnika bezopasnosti pri montazhe i eksploatatsii stankov-kachalok normal'nogo riada. Baku, Gos.nauchno-tekhn. izd-vo neftianoi i gorno-toplivnoi lit-ry, Azerbaidzhanskoe otdelenie, 1951. 29 p. (MIRA 8:4)

(Petroleum industry--Safety measures) (Oil well pumps)

MANVELYAN, Eleonora Grigor'yevna; SULTANOV, D.K., redaktor; AL'TMAN, T.B., tekhnicheskiy redaktor.

[Safety engineering in deep-well pumping] Tekhnika bezopasnosti pri glubinnonasosnoi ekspluatatsii skvazhin. Baku, Azerbaidzhanskoe gos. izd-vo neftianoi i nauchno-tekhn. lit-ry, 1955.146 p. (MLRA 9:4)
(Oil well drilling--Safety measures)

MANVELYAN, E.G., inzhener; SKORNYAKOV, M.V., inzhener; ESTRIN, R.Ya., inzhener.

Double-seat supports used in repairing. Bezop. truda v prom. 1 no.2: 27-28 F '57. (MLRA 10:4)
(Oil fields--Equipment and supply)

25(5)

SOV/92-58-9-31/36

AUTHOR: Manvelyan, E.G.

TITLE: Institute Collaborates with Production Workers (Institut sotrudnichayet s proizvodstvom)

PERIODICAL: Neftyanik, 1958, Nr 9, p 32 (USSR)

ABSTRACT: The author states that members of the VNIITB (All-Union Scientific Research Institute of Safety Engineering) came to the conclusion that it is necessary to promote the protection and safety of the personnel working in enterprises of the Buzovnyneff' Petroleum Production Administration. On the other hand the personnel of the Buzovnyneft' Administration offered their collaboration to facilitate the task of the above-mentioned institute. As a result, considerable efforts were made to improve conditions under which oil wells are overhauled. A complex equipment comprising a tractor with a crane was developed and introduced. New methods of overhauling oil wells were tested and accepted by the VNIITB, and adopted by the Buzovnyneft' Administration. The institute developed new wrenches to unfasten rods when

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the plunger of a deep pump is stalled. Moreover, educational programs for training the personnel of the above-mentioned administration were also elaborated by the members of the institute who organize conferences and lectures to promote the safety of workers on the job. As a result of these measures the number of accidents in oilfields exploited by the Buzovnyneft' Administration decreased.

ESTRIN, R.Ya.; MANVELYAN, E.G.

Safety methods and equipment in performing complicated repair work from double pole masts. Trudy VNIITB no.10:33-39 '58. (MIRA 15:5)

(Oil wells--Safety measures)

MANVELYAN, B.G., inzh.; ESTRIN, R.Ya., inzh.

Submarine geophysical prospecting. Bezop.truda v prom. 3 no.1:14-15 Ja '59. (MIRA 12:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po tekhnike bezopasnosti v neftyanoy promyshlennosti.
(Prospecting--Geophysical methods)
(Petroleum in submerged lands)

ESTRIN, R.Ya., inzh.; MANVELYAN, E.G. inzh.; ARZUMANOV, A.A., inzh.

Safety measures in completing oil wells. Bezop.truda v prom 4 no.6:14-17 Je '60. (MIRA 14:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po tekhnike bezopasnosti v neftyanoy promyshlennosti.
(Oil well drilling—Safety measures)

MANVELYAN, E.G., inzh.; BAYTUGANTI, Ye.G., inzh.

Tube elevators for underground repairing of wells. Bezop.truda v prom. 4 no.10:24-25 O '60. (MIRA 13:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po tekhnike bezopasnosti v neftyanoy promyshlennosti, Baku.
(Oil wells--Equipment and supplies)

ESTRIN, R.Ya.; ARZUMANOV, A.A.; MANVELYAN, E.G.

Safety measures in the testing of gas wells. Gaz. prom. 5 no. 12:12-14 D '60. (MIRA 14:1)
(Gas wells—Safety measures)

ESTRIN, R Ya.; NORDKIN, V M ; MANVELYAN, E G ; ARZUMANOV, A A.

Safety problems in completing oil and gas wells. Trudy VNIITB no.13:5-20 '60. (MIRA 14:12)
(Oil fields--Safety measures)

MANVELYAN, E.G.; BAYTUGANTI, Ye.G.

Choice of efficient and safe design of pipe elevators for underground oil well repairs. Trudy VNIITB no.13:21-29 '60. (MIRA 14:12)
(Oil wells--Equipment and supplies)

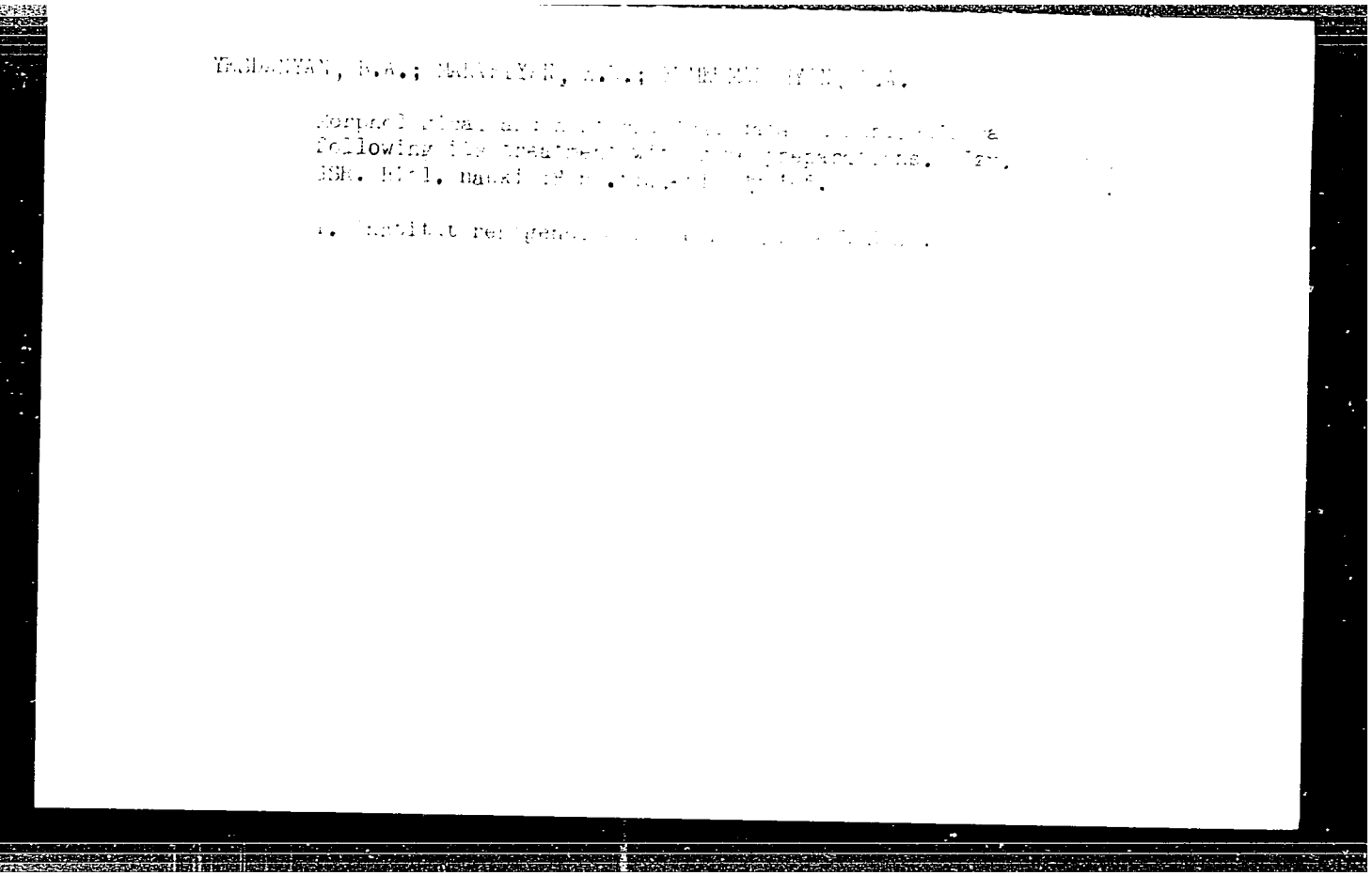
MANVELYAN. E.G., inzh.; BAYTUGANTI, Ye.G., inzh.

Fastening cables of an electric subsurface pumping unit. Bezop.truda v prom. 6 no.7:24 Jl '62. (MIRA 15:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy neftyanoy institut po tekhnike bezopasnosti.
(Oil well pumps)

MANVELYAN, Eleonora Grigor'yevna; SULTANOV, S.D., red.; KAYESHKOVA, S.M., ved. red.; DUBROVSKAYA, L.V., tekhn. red.

[Safety engineering in oil well production] Tekhnika bezopasnosti pri ekspluatatsii neftianykh skvazhin. Moskva, Gostoptekhizdat, 1963. 155 p. (MIRA 16:9)
(Petroleum production--Safety measures)



Research on crystallization processes of fused basalts with chromite additions. L. A. Rottnyants and M. G. Manvelyan. *Mineral. Syr'e* **1938**, No. 1, 20-31; *Referat-karten Silikatliteratur* **5**, (4) 5175(1938). —The effect of chromite addns. on the devitrification of fused basalt was studied by the isotherm method. Between 750 and 1050° only fine and coarse cryst. modifications were observed in basalt alone or with 1-2% chromite addn. When cooling between 725 and 950° fine cryst. modifications with the structure of Reaumur porcelain are formed with chromite addns. Chromite addns. greatly increase the devitrification of fused basalt. The temp. of the beginning of devitrification (formation of the first crystals) is reduced about 50° with chromite addns. The transition from fine cryst. modifications into coarse is at 850° for basalt alone, for basalt with chromite addn., 950°. The rate of devitrification is greater than the rate of transition of the fine cryst. modification into coarse. Chromite addns. reduce the devitrification of the coarse cryst. modification. The "spherolite" of Reaumur porcelain obtained by fusing basalt with chromite addns. is [illegible] that of hardened fine cryst. basalt without addns. The addn. of chromite raises the beginning of softening to 950°, in contrast with 780° for basalt alone. The devitrification temp. of basalt with chromite addn. lies below the softening temp.; by cooling to 725-900° a complete transition in structure of Reaumur porcelain is obtained without deformation. Chromite addn. increases acid stability. A chromite addn. of more than 3% is unsuitable.

M. V. Condude

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

MANVELYAN, M.G.

Obraining mullite from the ash of Tkibuli coal [with summary in English]. Izv.AN Arm.SSR.Est.nauki no.4:43-51 '47. (MLRA 9:8)
(Tkibuli--Mullite)

MANVELYAN, M.G.; GALFAYAN, G.T.; KANKANYAN, A.G.

Study of refractory materials used for the inner lining of chlorination furnaces [with summary in English]. Izv.AN Arm.SSR.Est. nauki no.4:53-57 '47. (MLRA 9:8)

(Refractory materials)

MANVELYAN, M. G.

Manvelyan, M. G. - "The question of aluminum oxide concentration of nepheline-syenite rock," Izvestiya (Akad. nauk Arm. SSR), Fiz.-matem., yestestv. i tekhn. nauki, 1948, No. 3, p. 208-12 --- Summary in Armenian --- Bibliog: 5 items

So: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 13, 1949)

MANVELYAN, M. G.

Conditions for preparation of highly acid-resistant material from volcanic tufa. M. G. Manvelyan, A. A. Trchunyan, and R. P. Pogosyan. *Doklady Akad. Nauk Armyan. S.S.R.* 19, 13–17(1954)(in Russian).—A specimen of tufa contg. 64.83% SiO_2, 18.2% Al_2O_3, and small amts. of oxides of Ti, Fe, Mn, Ca, Mg, Na, and K shows a great increase in acid resistance (HCl, HNO_3, H_2SO_4) after a treatment consisting of particulation to pass a sieve with 4900 meshes per sq. cm., pressing into small artifacts, and calcining at 950–1120°. This treatment gives a product with a glazed and uniform structure, which is approx. 100% more dense than the starting material. If the powd. material is first treated with 1–6% aq. NaOH and pressed at 100–250 kg./sq. cm., the results are comparable with those obtained without Na-OH addn. and pressing at 450–650 kg./sq. cm. The water absorbability of the final products is but 0.03% of that possessed by the starting material, while the compression strength reaches 3000 kg./sq. cm. The most acid-resistant products are obtained through the use of 1% NaOH addn.; higher amts. of NaOH reduce acid resistance slightly.

G. M. Kosolapoff

MANVELYAN M

USSR/Chemical Technology - Chemical Products and Their Applications - Silicates. Glass. Ceramics. Binders. I-10

Abs Jour : Ref Zhur - Khimiya, No 3, 1957, 9015

Author : Manvelyan, M., Pogosyan, R., and Ter-Karapetyan, S.

Inst :

Title : Penotuf

Orig Pub : Stroit. materily, izdeliya i konstruktsii, 1955, No 5, 34

Abstract : A new construction material, Penotuf [foamtuf], has been prepared by heating Aniysktuf to 1200° and holding it at that temperature for two hours; the raw material is passed through a sieve with 2500 openings per cm. The addition of 20% Aniysk clay increases the expansion temperature range and

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USSR/Chemical Technology - Chemical Products and Their Applications - Silicates. Glass. Ceramics. Binders.

Abs Jour : Ref Zhur - Khimiya, No 3, 1957, 9015

thus gives a more uniform distribution of the pores. At the same time the resistance of the product to attack by mineral acids is improved. A chemical analysis of the composition of the raw material is given together with a comparative evaluation of Penotuf, foam glass, and pumice. The bulk density of Penotuf is 0.55-0.85 gms/cm, the crushing strength is 25-40 kg/cm, and the absorption is 4-5%.

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MANVELYAN, M. G.

"Fusion of glass with uncooled electrodes,"M. G. Manvelyan, A. F. Melik-Akhnazaryan, K. A. Kostanyan, E. A. Erankyan, S. O. Nalchadzhyan, and S. T. Oganesyan, Izvest. Akad. Nauk Armyan. SSR, Ser. Fiz.-Mat. Estestven. i Tekh. Nauk, 8, No. 1, 65-74 (1955) (in Russian, Armenian summary).

for abstract see card on MELIK-AKHNAZARYAN, A. F.

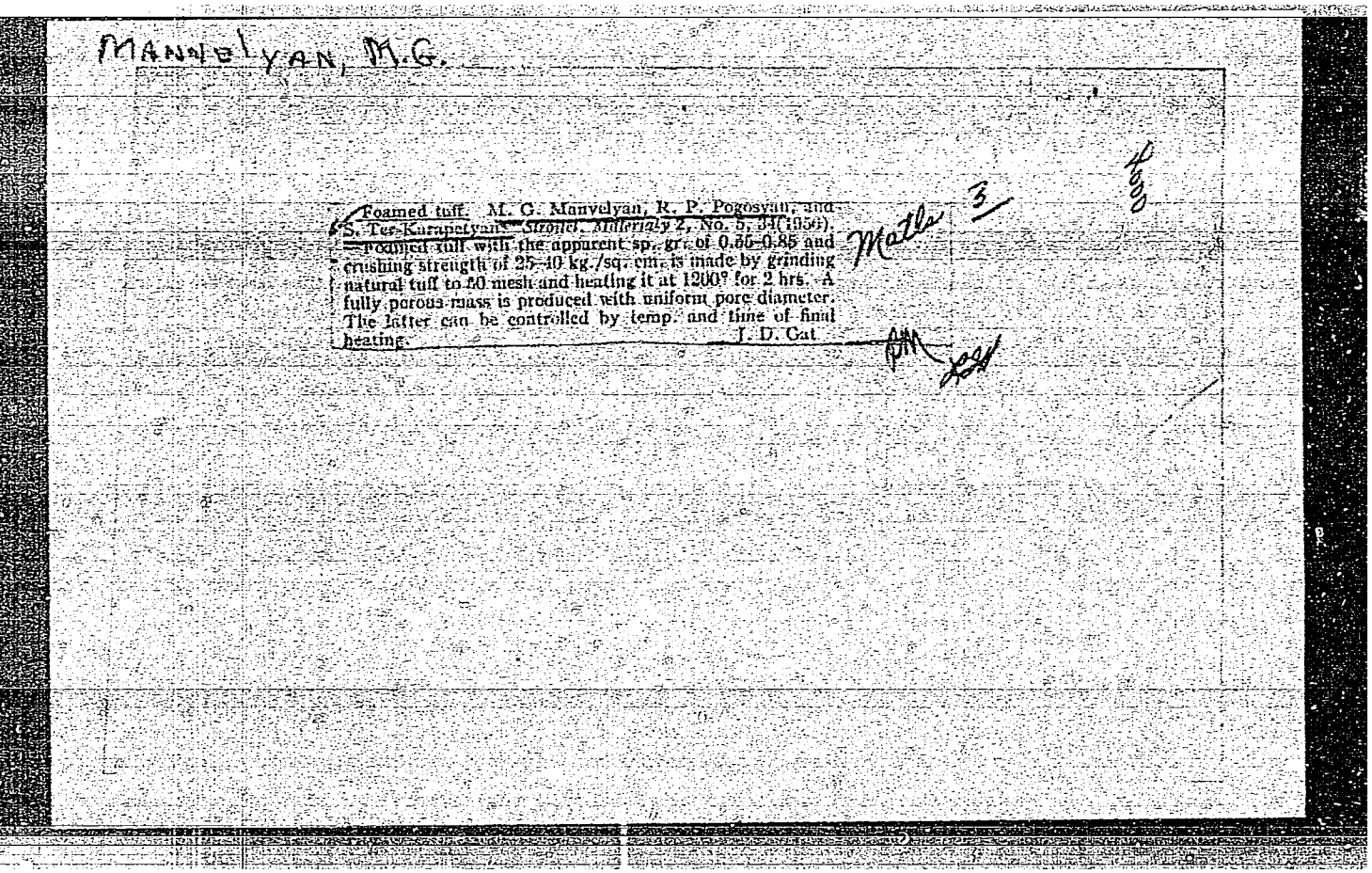
MANVELYAN, M. G.

Use of KCl as fining agent in electrically fused glass. M. G. Manvelyan, A. F. Melik-Akhnazaryan, K. A. Kostanyan, E. A. Erzakyan, S. O. Balasanyan, and S. T. Oganesyan. *Izvest. Akad. Nauk Armyan. S.S.R., Ser. Fiz.-Mat. Estestven. i Tekh. Nauk* 8, No. 1, 75-9(1955)(in Russian, Armenian summary; cf. Mazelev, C.A. 47, 9570a).—Semiindustrial pilot plant expts. with an elec. tank furnace for the production of bulb glass were performed by using KCl (0.25, 0.50, 1.0% added to the charges, batch, and cullet). KCl distinctly reacts with the refractory lining ($AlCl_3$ is observed in deposits on the arches, especially in KCl condensed from the vapor), and with the electrodes (increased Fe_2O_3 content of the glass), if more than 0.25% KCl is added. The batch is fused very promptly, the fining effect complete. The K_2O content of the glass is slightly increased; the content of 0.60 to 0.65% Cl does not cause troubles in the working and use of the glass. W. Eitel

MANVELYAN, M.G.; KRMOYAN, T.V.; YEGANYAN, A.G.; KOCHARYAN, A.M.

Electric conductivity of concentrated sodium and potassium hydroxide solutions, their carbonates, and NaOH--KOH mixtures at 25°C.
Izv. AN Arm. SSR. Ser. FMET nauk 8 no.4:73-79 Jl-Ag '55. (MLRA 9:2)

1.Khimicheskiy institut AN Armyanskoy SSR.
(Sodium hydroxide--Electric properties) (Potassium hydroxide--Electric properties)



MANVELYAN, M.G.

Foamed tuff. M. G. Manvelyan, R. P. Pogosyan, and S. Ter-Karapetyan. *Stroitel. Materialy* 2, No. 5, 34(1956). Foamed tuff with the apparent sp. gr. of 0.55-0.85 and crushing strength of 25-40 kg./sq. cm. is made by grinding natural tuff to 50 mesh and heating it at 1200° for 2 hrs. A fully porous mass is produced with uniform pore diameter. The latter can be controlled by temp. and time of final heating. J. D. Cat

MANVELYAN, M. G.

USSR/Chemical Technology. Chemical Products and Their Application - Silicates. Glass. Ceramics. Binders. I-9

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 12530

Author : Manvelyan M.G., Melik-Akhnazaryan A.F., Kostanyan K.A., Nalchadzhyan S.O.

Title : Use of Graphite Electrodes in Electric Glass-Melting Furnaces

Orig Pub : Steklo i keramika, 1956, No 7, 1-7

Abstract : Description of the history of utilization, in USSR, of steel, wall-adjoining electrodes in glass-melting furnaces, and the testing of graphite electrodes in a semi-production scale furnace. Presented are the theoretical premises of the behavior of graphite electrodes in the body of glass, and on the basis of the results of their tests under different loads and glass-melting temperatures the conclusion is reached that the domestically manufactured graphite electrodes are entirely suitable for this purpose.

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MANVELYAN, M G

Poland/Chemical Technology -- Chemical Products and Their Application. Silicates. Glass. Ceramics. Binders, I-9

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 1589

Author: Manwielan, M. G., Pogosjan, R. P., and Ter-Karapetjan, S. A.

Institution: None

Title: Glazed Articles from Tufa

Original Periodical: Szklo i ceram., 1956, Vol 7, No 7-8, 218; Polish

Abstract: Translation. See Referat Zhur - Khimiya, 1956, 40308.

Card 1/1

MANVELYAN, M.G.

USSR/Physical Chemistry - Solutions, Theory of Acids and Bases B-11

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 3913

Author : Manvelyan M.G., Krmoyan T.V., Yeganyan A.G., Kocharyan A.M.

Inst : Academy of Sciences Armenian SSR

Title : Effect of Temperature on Conductance of Concentrated Solutions of Hydroxides and Carbonates of Sodium and Potassium.

Orig Pub : Izv. AN ARmSSR, ser. fiz.-matem., yestestv. i tekhn. n., 1956, 9, No 2, 3-12.

Abstract : The specific electric conductivity of concentrated solutions of hydroxides and carbonates of sodium and potassium were determined within the temperature interval of 25-85°. At high temperatures rate of movement of Na^+ and K^+ ions in concentrated solutions of NaOH and KOH is about the same, which the authors explain on the basis

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MANVELYAN, M. G.

USSR /Chemical Technology. Chemical Products and Their Application I-12

Silicates. Glass. Ceramics. Binders.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31493

Author : Manvelyan M. G., Abramyan A.V.

Inst : Academy of Sciences Armenian SSR

Title : Investigation of the Process of Calcination of Fused and Vitreous Basalt from the Standpoint of Oxidation-Reduction Processes

Orig Pub: Izv. AN ArmSSR. Fiz. matem. yestestv. i tekhn. n., 1956, 9, No 6, 3-20

Abstract: A study of the process of calcination of pulverulent, natural and vitreous basalts, obtained following fusion and rapid cooling, in different

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Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31493

gaseous media. Heating of the samples was carried out in a tubular electric furnace at a rate of 10-12° per minute, and with holding for 1 hour. The samples were pressed from a powder (screen 4900 apertures per cm^2), mixed with 15-20% water. The study was conducted at temperatures of 700-1200° in the following media: hydrogen, nitrogen, air, oxygen and carbon dioxide. After heating the samples were investigated visually and microscopically. It was found that samples of basalt in a reducing medium, or samples from reducing fusions, undergo recrystallization more rapidly and better than in an oxidizing medium. Samples recrystallized in a reducing medium acquire a denser and more

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finely-crystalline structure and have a black coloration. Increased content of ferrous iron in the pulverulent basalt glass-paste, or a low degree of oxidation of the basalts (Fe_2O_3 : FeO less than 0.8-0.7), have a beneficial effect on the course of the recrystallization. Forms of the crystals that are formed, rate of crystallization and composition of the resulting compounds depend upon the medium in which the process of fusion and recrystallization of basalt was carried out. In the process of calcining of natural pulverulent basalt, or on recrystallization of pulverulent basaltic glass-paste, certain chemical changes take place, as well as a change in color:

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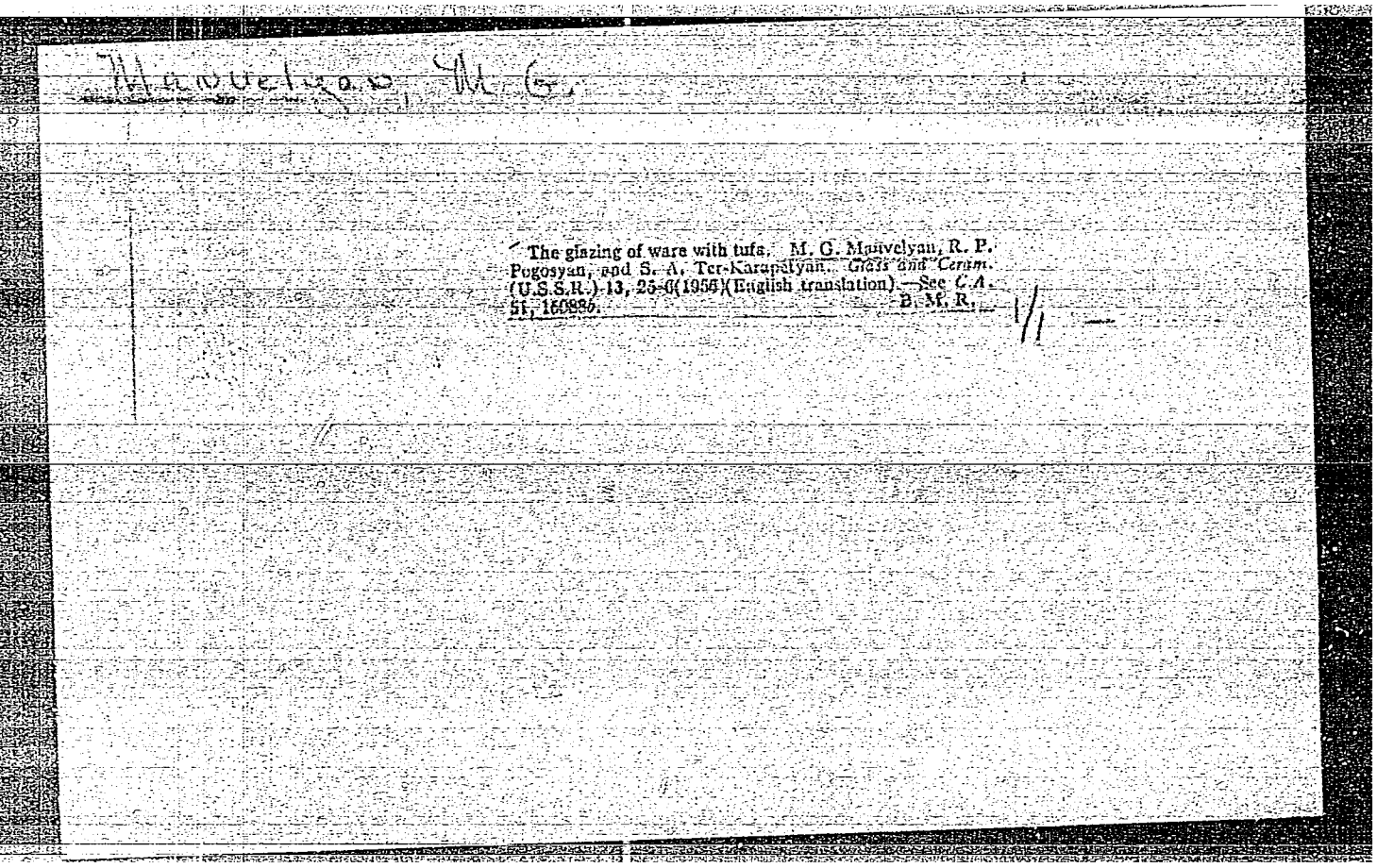
Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31493

in an atmosphere of hydrogen a black tinge develops, in an atmosphere of oxygen -- a pink or red tinge, and in other atmospheres -- a pale greyish-pink tinge. At the same temperature level there is noted the establishment of a definite state of equilibrium between ferric oxide and ferrous oxide. It was found that the processes of oxidation and reduction of the iron are reversible and depend on the medium, the temperature and duration of heating.

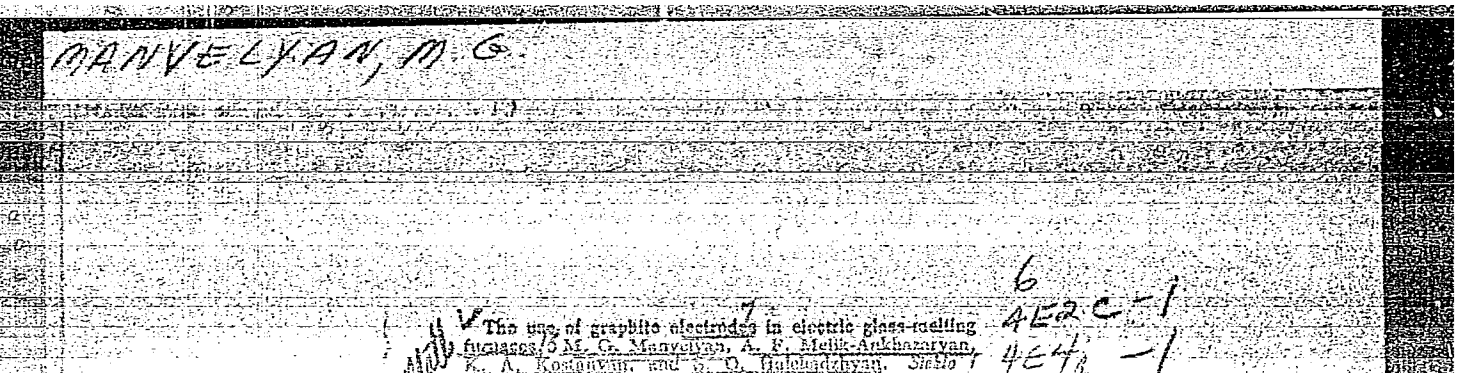
MANVELYAN, M.G.

The glazing of ware with tufa. M. G. Manvelyan, R. P. Pogosyan, and S. A. Ter-Karapetyan. *Stekło i Keram.* 13, No. 1, 16–17(1956).—A white glaze for elec. insulators is made with a frit composed of tufa, chalk, feldspar, quartz sand, zircon, dolomite, borax, and ZnO (proportions not specified). A slip of 40–2° Be. is applied and fired to 1100° without preliminary drying. It forms a white coating that completely hides the body color, does not crack or chip, and conforms with the linear expansion of the body.
H. L. Olin



Manvelyan, M. G.

The glazing of ware with tufa. M. G. Manvelyan, R. P. Pogosyan, and S. A. Ter-Karapetyan. *Glass and Ceram.* (U.S.S.R.) 13, 25-6(1956)(English translation).—See *C.A.* 51, 16088b. B. M. R. 1/1



... furnaces. M. O. Manvelyan, R. P. Melik-Akhnazaryan, K. A. Kostanyan, and S. O. Galstyan. *Steklo i Keram.* 13, No. 7, 1-7(1956).—Graphite electrodes (7 samples) made at Dneprovskii plant were tested in elec. glass-melting furnaces. The diam. of the electrodes was 45–103 mm., length 239–350 mm., resistance 7.7 ohms, and ash 0.2% by wt. The results were very satisfactory. The interaction between electrodes and melted glass was negligible. The working conditions of graphite electrodes depends on c.d., temp., and viscosity of the glassy mass. The temp. of the mass (sample #7) was 1360-90°, the current 333 (at start) to 850 amp. (after 60 hrs.). The increase of c.d. above that of crit. resulted in the appearance of foam, coloration, and destruction of electrodes. The electrodes must be isolated from air contact, especially at high temp.

Alexis N. Pestoff

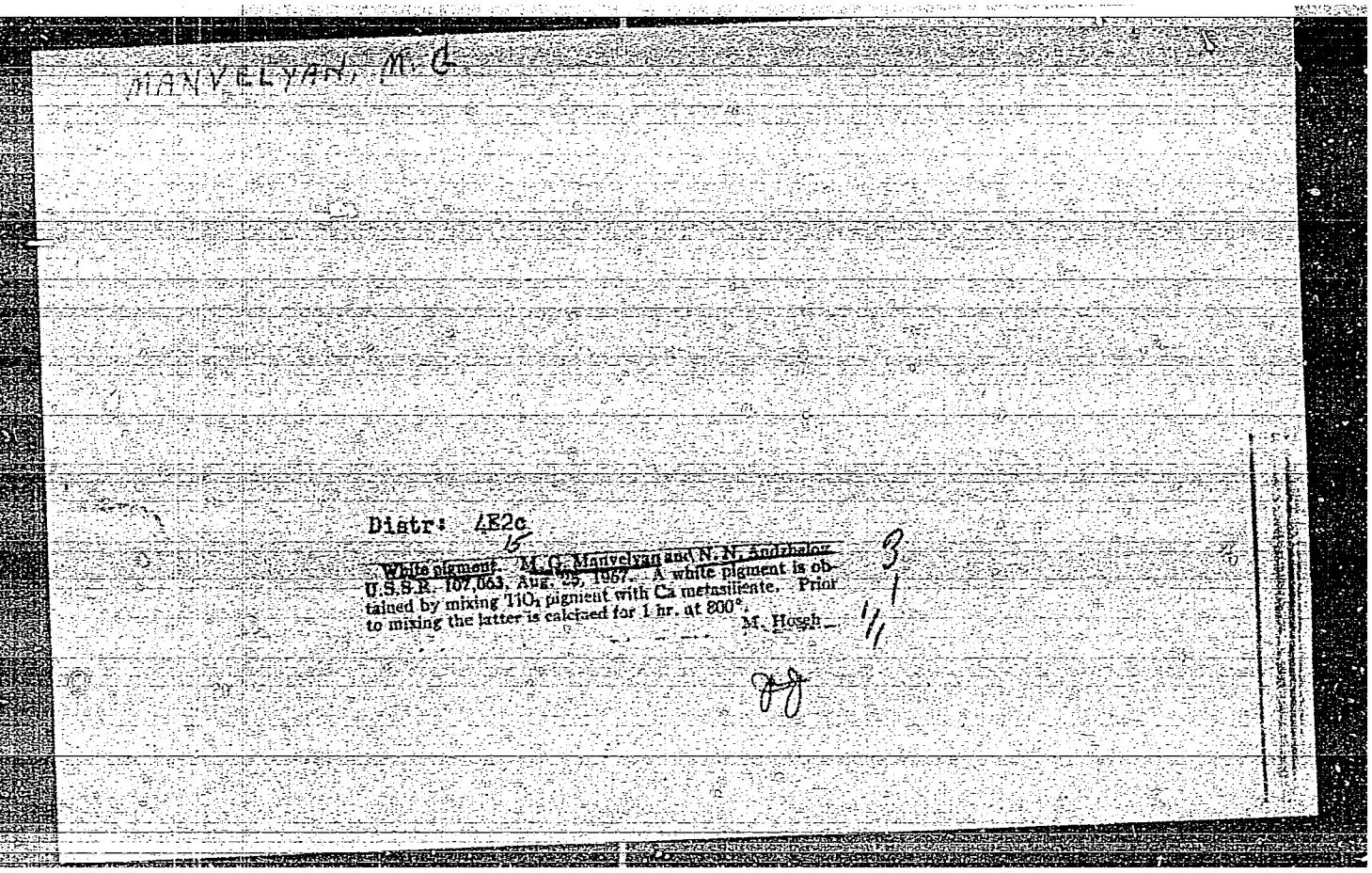
MANVELYAN, M. G.,

"The Conductivity of Sodium Aluminate Solutions" by Kermoyan, M. G. Manveylan, and L. G. Shaginyan, Izvestiya, Armenian Academy of Sciences, X,5,305-313, 1957.

"The Conductivity of Concentrated Solutions of Sodium and Potassium Hydroxides, Their Carbonates, and Mixtures of NaOH and KOH at 25' by Kermoyan, Manvelyan, A. G. Eganyan , and A. M. Kocharyan, Izvestiya, Armenian Academy of Sciences, VIII, 4, 73-78, 1955.

"Effect of Temperature on Electric Conductivity of Concentrated Solutions of NaOH, KOH, Na_2CO_3, and K_2CO_3" by Kermoyan, Manvelyan, Eganyan and Kocharyan, Izvestiya, Armenian Academy of Sciences, IX, 2, 3-12, 1956.

"Study of the Electric Conductivity of Solutions of Sodium Silicate" by Kermoyan, Manvelyan, and Eganyan, Izvestiya, Armenian Academy of Sciences, X, 4, 225-236, 1957.



MANVELYAN, M. G.

Distr: 4E2c

White pigment. M. G. Manvelyan and N. N. Andrianov. U.S.S.R. 107,063, Aug. 25, 1957. A white pigment is obtained by mixing TiO_2 pigment with Ca metasilicate. Prior to mixing the latter is calcined for 1 hr. at 800°.

M. Hosgh

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Process of chemical alkaline activation of nepheline concentrate and investigation of its coagulation with limestone. I. Alkaline treatment of nepheline concentrate. M. G. Manvelyan and A. G. Bayadian (Chem. Inst. Acad. Sci. Armenian S.S.R., Erevan). *Izvest. Akad. Nauk Armyan. S.S.R., Ser. Khim. Nauk* 10, No. 1, 21–35(1957)(in Russian).—During treatment of nepheline concentrate (I) with a base, it underwent partial decompn. with pptn. of SiO_2, the amt. of which was proportional to the concn. of NaOH, the temp., and the reaction time. During this process the amt. of Al_2O_3 entering into soln. was very small; at 200 g./l. NaOH after 6 hrs. at 90° the molar ratio SiO_2/Al_2O_3 in soln. was 1.5, at 350 g./l. NaOH and 240° after 10 hrs. it went up to 25.8. The SiO_2 content in residue after the treatment decreased by 6–8%, Al_2O_3 increased from 28.7% to approx. 30%. The finely dispersed phase of the residue had the following molar ratios: 2.05 SiO_2:1.00 Al_2O_3:1.04 (Na_2O + K_2O):0.60 H_2O. According to these observations, the decompn. of I proceeded as follows: (1) $Na_2O \cdot Al_2O_3 \cdot 6SiO_2$ + 8NaOH → $4Na_2SiO_3$ + $Na_2O \cdot Al_2O_3 \cdot 2SiO_2 \cdot H_2O$ + $3H_2O$, then nepheline entered into reaction (2) $2(Na_2O \cdot Al_2O_3 \cdot 2.8SiO_2)$ + 2NaOH + H_2O → Na_2SiO_3 + $2(Na_2O \cdot Al_2O_3 \cdot 2SiO_2 \cdot H_2O)$, the traces of Al_2O_3 entered into the soln. according to

$$Na_2O \cdot Al_2O_3 \cdot 6SiO_2 + 12NaOH \rightarrow 6Na_2SiO_3 + 2NaAlO_2 + 6H_2O$$

and especially (3) $2(Na_2O \cdot Al_2O_3 \cdot 2.8SiO_2)$ + $10NaOH \rightarrow 5Na_2SiO_3 + 4NaAlO_2 + 5H_2O$. In soln. another reaction took place: (4) $Na_2SiO_3 + NaAlO_2 \rightleftharpoons Na_2O \cdot Al_2O_3 \cdot 2SiO_2 \cdot H_2O$. At low temps. and after short durations in dil. base, reactions (1), (2), and (3) were predominant, with reaction (4) in addn. at higher temp. and concn. of the base. Under the conditions when the concn. of the base was increased without the raising of the temp., the decompn. rate of $Na_2O \cdot Al_2O_3 \cdot 2SiO_2 \cdot H_2O$ increased. A. P. Kotlyby

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MANVELYAN, M.G.; SAYADYAN, A.G.

Investigating the process of chemical (alkaline) activation of nepheline concentrate and studying its sintering with limestone. Report No.2: Studying the sintering of chemically activated nepheline concentrate with limestone. Izv. AN Arm. SSR Ser. khim. nauk 10 no.2:97-104 '57. (MIRA 10:12)

1. Khimicheskiy institut AN ArmSSR.
(Nepheline) (Limestone) (Sintering)

MANVELYAN, M.G.; MELIK-AKHNAZARYAN, A.F.; KOSTANYAN, K.A.; NALCHADZHYAN, S.O.

Glass layers next to the electrodes in electric glass furnaces. Izv.AN Arm.SSR. Ser.tekh.nauk 10 no.4:53-60 '57. (MIRA 10:10)

1. Khimicheskiy institut AN Armyanskoy SSR.
(Glass furnaces) (Electrodes)

MANVELYAN, M.G.; KHMOYAN, T.V.; YEGANYAN, A.G.

Electric conductivity of sodium silicate solution. Izv. AN Arm. Ser. khim. nauk 10 no.4:225-236 '57. (MIRA 10:12)

1. Khimicheskiy institut AN ArmSSR.
(Sodium silicates--Electric properties)

Distr: 4E4j

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The conductivity of sodium aluminate solutions. M. G. Manvelyan, T. V. Kirnoyan, and L. G. Shaglyan. *Izvest. Akad. Nauk Armyan. S.S.R., Ser. Khim. Nauk.* 10, No. 5, 305–13(1957)(in Russian).—The elec. cond. of Na aluminate solns. (I) shows the possibility that $Al(OH)_4^-$ ions exist in the soln. at the ratio Al/Na 1:3 at a definite concn. of Na-OH. The complexity of equil. of I solns. is reflected in the elec. properties of the soln., owing to the inconstancy of the coördination of Al. Ions with coördination no. 6 apparently are more stable than those with 5 and 8. The investigation does not confirm the existence of $Al(OH)_6^{---}$. Peptization of $Al(OH)_3$ particles takes place in a dil. soln. at Al/Na < 1:3 and in concd. solns. at Al/Na > 1:3. M. Charmandarian